CHAPTER 1
Introduction

The Dell™ PowerApp™ 200 appliance is an ultra-slim, full-featured, rack-mounted, turn-key device with an embedded operating system. Combined with innovative setup and administrative tools and utilities, the PowerApp 200 provides specific and reliable functionality in a rack-dense form factor.

System Features

PowerApp systems offer the following major features:

- One Intel® Pentium® III microprocessor.

  The Pentium III microprocessor includes MMX™ technology designed to handle complex multimedia and communications software. This microprocessor incorporates new instructions and data types as well as a technique called single instruction, multiple data (SIMD) that allows the microprocessor to process multiple data elements in parallel, thereby improving overall system performance.

  A secondary level 2 (L2) cache of static random-access memory (SRAM) is included within the single-edge contact (SEC) cartridge that contains the microprocessor. Math coprocessor functions are provided by the microprocessor. A separate and external math coprocessor chip is not used or required.

  The size of the L2 cache is dependent on the processor installed in the system.

- Front side bus (FSB) with an external bus speed of 133 megahertz (MHz).
- A minimum of 512 megabytes (MB) of system memory, with a maximum of 2 gigabytes (GB) installed in combinations of 128-MB, 512-MB, 1-GB, or 2-GB registered synchronous dynamic RAM (SDRAM) dual in-line memory modules (DIMMs) in the four DIMM sockets on the system board.
- A basic input/output system (BIOS) that resides in flash memory on the Peripheral Component Interconnect (PCI) bus.
- Support for up to four 1-inch, hot-pluggable small computer system interface (SCSI) hard-disk drives. One additional 1-inch hard-disk drive can be installed in the optional removable media bay.

- A power-supply distribution board to accommodate up to two independent power supplies. One power supply is standard; a second can be added to make the system redundant.
- A single 1.44-MB, 3.5-inch diskette drive.
- A 24X integrated drive electronics (IDE) CD-ROM drive.

The system board includes the following integrated features:

- Three PCI slots located on the riser card.
- An Intel PRO/100+ network interface controller (NIC), which provides an Ethernet interface.
- An Adaptec AIC-7899 Ultra3 (Ultra160) SCSI host adapter that supports up to five SCSI hard-disk drives (four 1-inch hard-disk drives via a SCSI backplane board and one 1-inch hard-disk drive via an optional SCSI hard-disk drive media bay). The SCSI backplane automatically configures SCSI ID numbers and SCSI termination on individual hard-disk drives, greatly simplifying drive installation.
- A video graphics array (VGA)-compatible video subsystem with an ATI RAGE IIC video controller. This video subsystem contains 4 MB of SDRAM video memory (nonupgradable). Maximum resolution is 1600 x 1200 x 256 colors (noninterlaced).
- A National Semiconductor PC97317 super input/output (I/O) controller that controls the bidirectional parallel port, two serial ports, keyboard, mouse, and the diskette drive.
- Server management circuitry that monitors operation of the system fans as well as critical system voltages and temperatures.
- System board support for the Dell OpenManage™ Remote Assistant when the optional Dell OpenManage Remote Assistant Card 2 (DRAC 2) is installed, which provides additional local and remote server management.
- A Personal System/2 (PS/2)-style keyboard port, dual Universal Serial Bus (USB) ports, and a PS/2-compatible mouse port.

Standard PowerApp systems include a 3.5-inch diskette drive and an IDE CD-ROM drive installed in the externally accessible bays and a SCSI hard-disk drive installed in slot 0.

The following software is included with your PowerApp system:

- Diagnostics for evaluating your system's components and devices. For information on using the system diagnostics, see "Running the Dell Diagnostics" in your *Troubleshooting Guide*.
- Kickstart configuration utility and reinstallation media for the appliance.

Operating System

Your Dell PowerApp system was preinstalled with an operating system. See the operating system documentation for additional information.

Front Panel

The following controls and indicators are behind the bezel on the computer's front panel (see Figure 1-1).

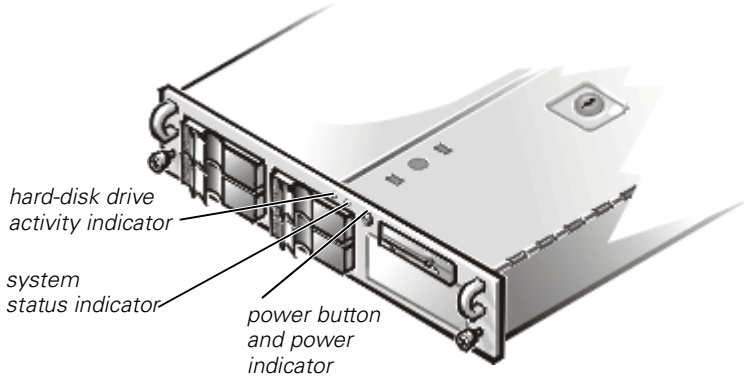

Figure 1-1. Front-Panel Features

- The power button/indicator on the front panel controls the AC power input to the system's power supply.
- The green indicator in the center of the power button lights up when the power supply is turned on and the system is receiving DC power. When the system is in sleep mode the power indicator is amber.

The following indicators are on the system's front panel.

- The green system status indicator blinks amber when a system failure is detected.
- The green hard-disk drive activity indicator lights when the hard-disk drives are in use.

Connecting External Devices

You can connect various external devices, such as a mouse and printer, to the I/O ports and connectors on the computer’s back panel (see Figure 1-2).

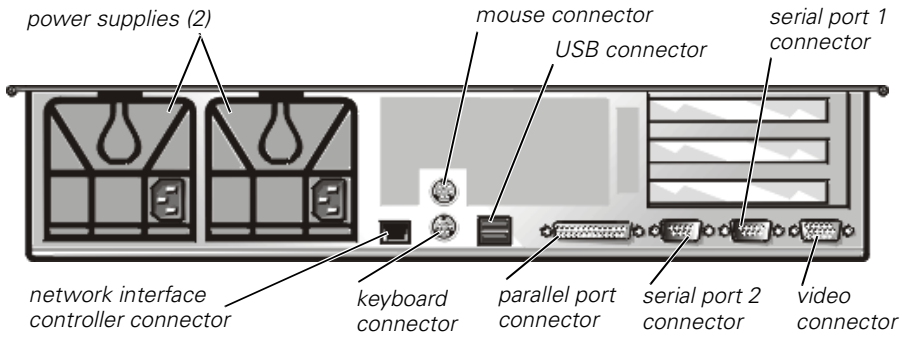

Figure 1-2. Back-Panel Features

The system BIOS detects the presence of external devices when you boot or reboot your system. When you connect external devices to your computer, follow these guidelines:

- Check the documentation that accompanied the device for specific installation and configuration instructions.

  For example, most devices must be connected to a particular I/O port or connector to operate properly. Also, external devices such as a mouse or printer usually require that you load software files called device drivers into memory before they will work. These software drivers help the computer recognize an external device and direct its operation. Device drivers of this type are normally included with your operating system software.

- Always attach external devices while your computer is turned off. Then turn on any external devices before turning on the computer unless the documentation for the device specifies otherwise. (If the computer does not seem to recognize the device, try turning on the computer before turning on the device.)

For information about enabling, disabling, or configuring I/O ports and connectors, see the software documentation that came with your system. For detailed descriptions and illustrations of each port and connector on the I/O panel, see Appendix B, "I/O Ports and Connectors."

Preventing Unauthorized Access to the Computer

A keylock on the top of the system prevents unauthorized access to the system.

Getting Help

If at any time you do not understand a procedure described in this guide, or if your system does not perform as expected, Dell provides a number of tools to help you.

For more information on these help tools, see "Getting Help" in your *Troubleshooting Guide*.

System Setup

For information about the system setup program, refer to the software documentation included with your appliance.